## **ABSTRACT OF THE DISCLOSURE**

A ceramic oxygen generator is described which is capable of modular construction to permit the oxygen generation capacity to be expanded. An ionically conducted ceramic electrolyte is formed into a series of rows and columns of tubes on a tube support member and like electrolyte bodies can be connected together to form a manifold therebetween for oxygen produced in the interiors of the tubes. An electrical connection between tubes is formed such that the anodes and cathodes of tubes in a column are connected in parallel while the tubes in the row are, respectively, connected anode to cathode to form a series connection.